

IRF Programs – Quarter Report January to March 2016

Sumatran Rhino Sanctuary YABI - Way Kambas National Park, Indonesia

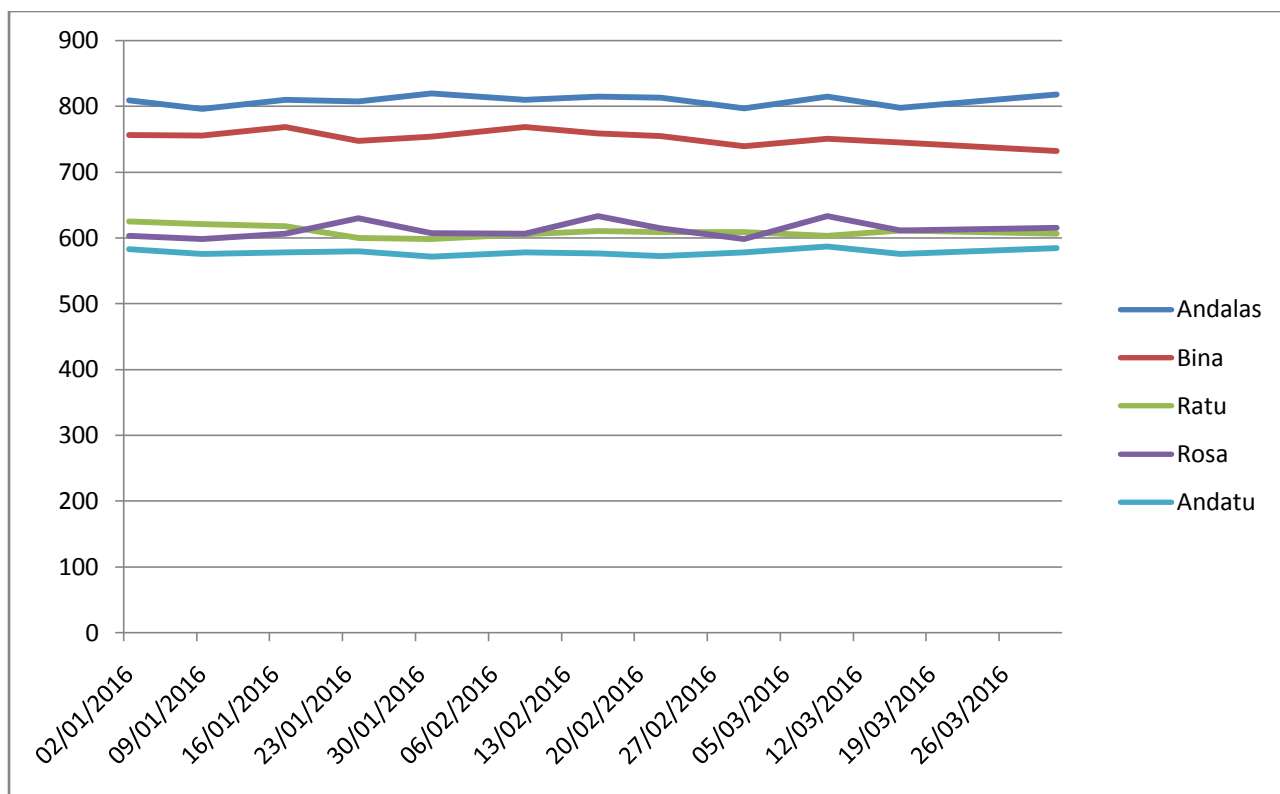
By Zulfi Arsan, DVM., Ni Made Ferawati, DVM. (Veterinarians) and Sumadi
Hasmaran (SRS Manager)



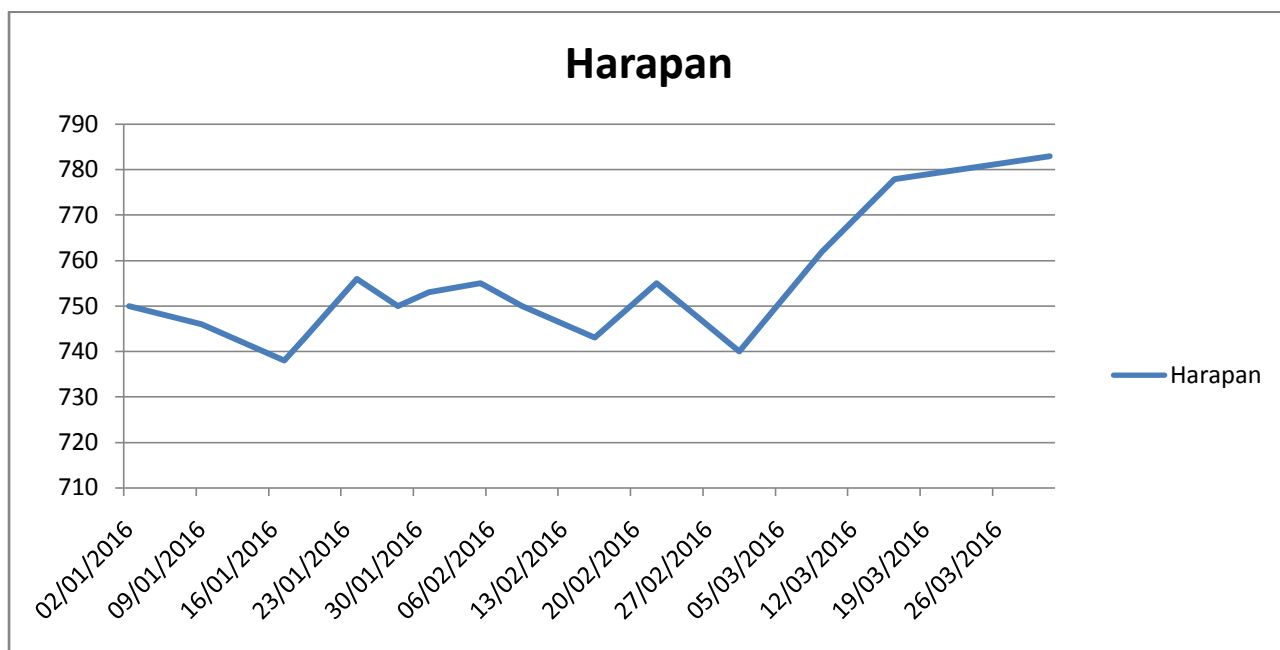
BADAK SUMATERA - SUMATRAN RHINO (*Dicerorhinus sumatrensis*)

SRS Program Results January to March 2016:

1. **Rhino health (Harapan will be reported separately)** – All Rhinos are in good condition. Blood parasite check conducted at Parasitology lab IPB Veterinary Faculty in January, some rhinos are infected by Anaplasma and Theileria.
2. **Reproduction Program**
 - a. Ratu pregnancy is in good condition, foetal heartbeat could be checked on January and is normal
 - b. Successfull breeding between Andalas and Rosa on March 2016, but did not resulting to pregnancy
 - c. Breeding between Andalas and Bina had not have success yet.
3. **Harapan Update** – Harapan is still on adaptation period. In January X-ray photograph was performed to examine his left hind leg, due to his limping condition. In March he got his left eye infection. Regime of treatment was applied, and his condition is back to normal again.
4. **Other -**



Picture 1. Andalas, Bina, Ratu, Rosa and Andatu Bodyweight chart from January to March 2016 (in kilogram)



Picture 2. Harapan Bodyweight chart, January to March 2016 (in kilogram)

Rhino Health Update.

Regular health monitoring, daily physical check, monthly blood check and weekly fecal check were conducted. All rhinos (except Harapan) are in good condition and with normal activities. Their body temperature were ranging from 36.5° C – 37.4° C. On blood parasite check in January 2016, *Anaplasma* sp. was observed on Andalas and Harapan's samples, while *Theileria* was observed on Harapan's and Andatu's samples. The prevalence of parasites were very low (0.1 -0.4%) and no change of haematology count on blood examination. Bina and Rosa were negative.

Andalas (Male, 14 Years Old)

Andalas is in good performance in this period. His body temperature ranged between 36.5 – 37.0 °C. In March he got some minor wounds due to fighting during introduction to Bina. Topical antibiotic ointment application had cured the wounds.

Picture 3. Andalas



Bina (Female, 33 Years Old)

Bina's condition is good and her activities are normal. Her eyes are very sensitive to direct sunlight exposure, and will develop cloudiness on affected eye. Treatment with Zinc Sulphate eye spray affective to reduce the cloudiness to normal condition. Bina got several wounds due to introduction process to Andalas. Topical antibiotic ointment applied to this wounds.



Picture 4. Bina with superficial wounds on her head

Ratu (Female, 15 Years Old)

Ratu's condition is good and her activities were normal. Oral progesteron is still given to maintain her pregnancy. Her activities is normal she often sleep on the ground, but wallowing also part of her activities. Her pregnancy on late stage in this period, and the birth is predict on the first week of May. Her body temperature ranged from 36,8 – 37,2 °C.



Picture 5. Ratu

Rosa (Female, 15 Years Old)

Rosa's condition is good and her daily activities also show normal behavior. Her Blood results shows normal range and body temperature ranged from 36,4-37,0°C. weekly fecal sampling are also done and the result showed that Rosa still infected by Paramphistomum, with low number of prevalence.



Picture 6. Rosa

Andatu (Male, 3 Years)

Andatu is good and normal behavior. He is actively exploring and foraging in his enclosure. He has no serious health problem. He has just small wounds on his feet sole and was treated with antiseptic and ointment. Blood collection results shows normal range. His body condition is good and his body temperature ranged from 36,6 - 37,3°C.

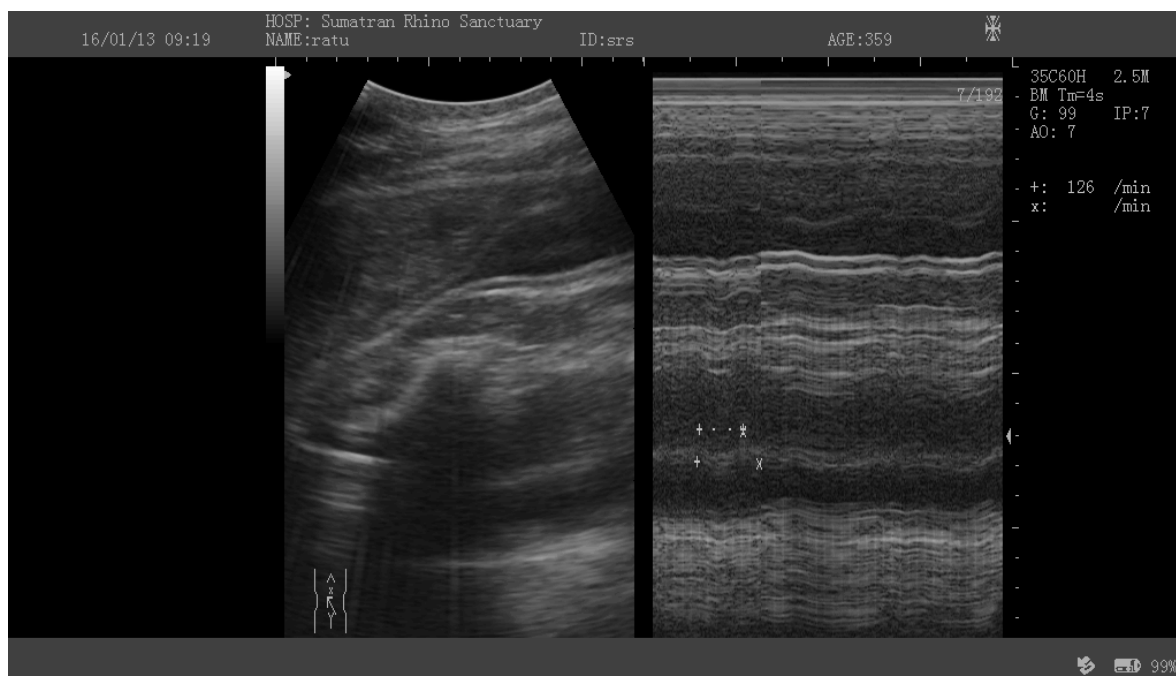


Picture 7. Andatu in his stall

Reproduction Program

Ratu

Ratu still receiving synthetic hormone (Altrenogest) orally once a day to help maintain her pregnancy. Her pregnancy is in good condition, only baby's movement could be determined during USG check. On 13th of January 2016 baby's heart rate could be counted and it is 126 bpm and normal. Ultrasound images are shown below.



Picture 8. Ratu's baby heartbeat

Rosa

Rosa was introduced to Andalas on every occasion when her follicle was on perfect size. On 5th of January January she was introduced to Andalas with no full intromission and ejaculation and her follicle did not ovulated. On 1st - 4th February the introduction also resulting with no copulation, and on post introduction USG check it was observed that her follicle forming haemorrhagic follicle. On 26th of February 2016 introduction, again resulting with no full intromission and ejaculation, and her follicle ovulated. In March, she was introduced on 21th of March 2016. In this introduction, Andalas finally could break Rosa's hymen and have a full intromission and ejaculation, with duration about 35 minutes, started at 5.07 PM. Post breeding USG check could not be performed, due to her uncomfot behaviour in the chute. USG observation 20 days post breeding revealed that there is no embryo pouch developed and her follicle did not ovulated and grown to haemorrhagic follicle.



Picture 9. Andalas and Rosa on January 2016



Picture 10. Andalas has full intromission and breaks Rosa's Hymen on March 2016

Bina

Bina did not introduced to Andalus on January and February due to synchronized follicle development with Rosa. But on March her follicle development slightly delayed that gave an opportunity to have introduction to Andalus. She was introduced on 10th of March 2016, but resulting with aggressiveness and fighting with Andalus.

Harapan update

Harapan (Male, 8 years, 9 month old)

Harapan is still on adaptation period, he still need to gain more weight. In January, his appetite is good, but still picky. He drinks a small amount of water, about 10 liter per day, which is very low compared to other rhinos, his haematology also shown an increased HCT value.



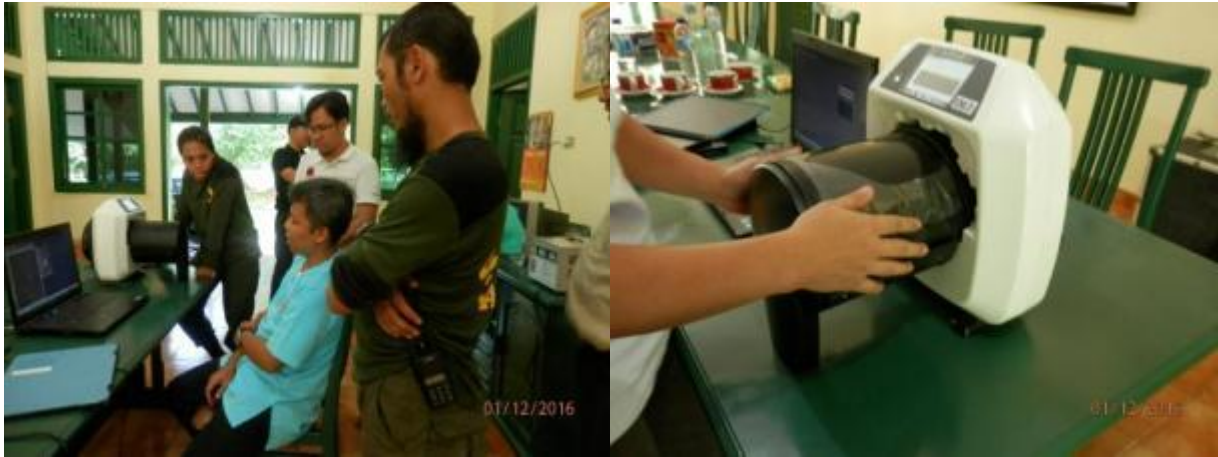
Picture 6. Harapan inside his stall in January

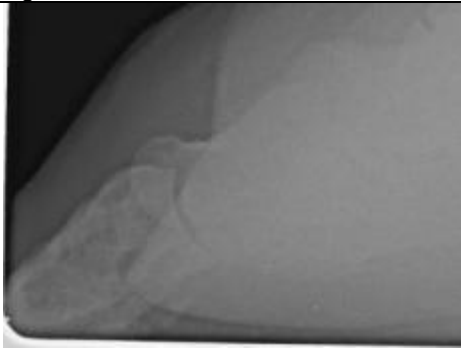
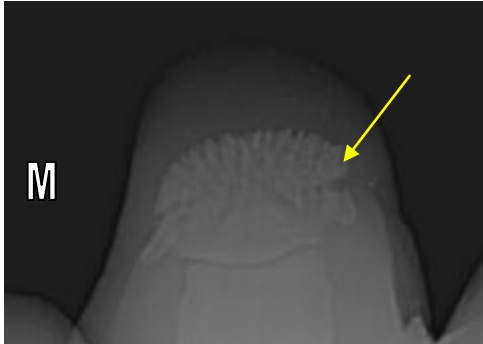
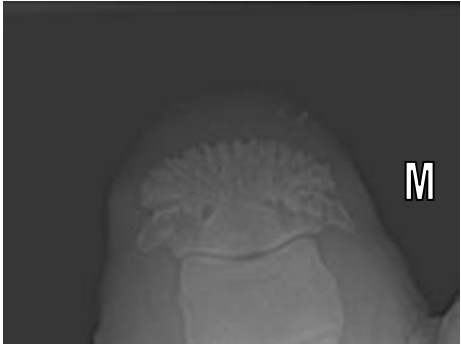
He still placed in his 1 hectare temporary area, while his larger enclosure is being built. He still picky on eating prepared browse offered, and abandon most of it. His activities is normal and his body temperature ranged from 36,6 - 37,3°C.

On 12th and 13th of January 2016, X-Ray examination had been conducted on Harapan's left hindleg, focused on his third finger bones of middle toe (coffin bone) to determine abnormality that causing limping. The result shows that the left coffin bone has different shape, compared to his normal right leg. It was diagnosed that Harapan has fracture/fissure on lateral wing of left midtoe coffin bone, with differential diagnose as congenital defect.

Due to possibilities that the abnormality might only minor and it will need an expert skills to read the results, the X-Ray activities was conducted by radiography and ultrasound imaging expert from IPB Veterinary Faculty, Prof. Drh. Deni Noviana, Ph.D., and using Computerized Radiography machine (CR-35).





No	View	Left	Right
1	Lateral		
2	Dorso plantar		
3	Plantaro dorsal		

Picture. X-Ray results

Soft floor is suggested by Dr. Deni to correct this condition, and also strengthen by advised from a equine veterinarian that treat many similar cases that consulted.

Healing time will take months due to poor vascularisation and blood supply to this area. Giving supplement of calsium should be considered carefully, it may cause overgrowth of the healing part, and may cause permanent limping due to position of the bone is inside the hoof. It is suggested to take another X-ray photo in 6 months.

On March 2016, Harapan had left eye infection. On 17th of March 2016, with fluorescein test it was diagnosed that there is a scratch wounds on his left eye. A regime of treatment that consisting antibiotic eye drops and ointment, atropine eye drops and autologous serum was applied and in 10 days of treatment, ita was healed.



Picture. Left eye infection of Harapan

Left eye after treatment.